(B) IN THE CLAIMS

1. (Currently Amended) An RF coil assembly, comprising:

an RF coil~~,~~;

a cylindrical patient bore enclosure having an inside and an outside;

a plurality of longitudinal cooling tubes attached to exterior of the patient bore enclosure; and

a means for directing air through the cooling tubes to cool the RF coil.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled).

5. (Currently Amended) An RF coil assembly ~~of claim 1 wherein the means for cooling comprises~~, comprising:

an RF coil;

a cylindrical patient bore enclosure~~,~~ having an inside and an outside;

a continuous cooling tube attached to the patient bore enclosure, said cooling tube being wound in the general shape of a helix; and

a means for directing air through the cooling tube to cool the RF coil.

6. (Cancelled)

7. Cancelled)

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Currently Amended) A patient bore cooling assembly for an RF coil in a cylindrical MR system comprising:

a gradient coil winding of hollow cylindrical configuration~~,~~;

an RF coil of hollow cylindrical configuration inside the gradient coil winding~~,~~;

a generally cylindrical patient bore inside of the RF coil having an inside surface and an outside surface~~, and~~;

a plurality of longitudinally spaced cooling tubes attached to the outside surface of the patient bore; and

a means for directing air through the cooling tubes to cool the RF coil.

18. (Cancelled)

19. (Currently Amended) A patient bore cooling assembly for an RF coil in a cylindrical MR system comprising:

a gradient coil winding of hollow cylindrical configuration~~,~~;

an RF coil of hollow cylindrical configuration inside the gradient coil winding~~,~~;

a generally cylindrical patient bore inside of the RF coil having an inside surface and an outside surface~~, and~~;

a cooling tube in a helical configuration attached to the outside surface of the patient bore; and

a means for directing air through the cooling tubes to cool the RF coil.

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Currently Amended) In an open architecture MR imaging system, an RF coil assembly, comprising:

~~an RF coil, and~~

a gradient coil winding of hollow cylindrical configuration;

an RF coil of hollow cylindrical configuration inside the gradient coil winding;

a generally cylindrical patient bore ~~enclosure~~, inside of the RF coil having an inside surface and an outside surface; and

a plurality of longitudinally spaced cooling tubes attached to the outside surface of the patient bore ~~enclosure~~.

25. (Original) The open architecture MR imaging system of claim 24 wherein a

plurality of cooling tubes are embedded within the RF coil.